

Zero/Six

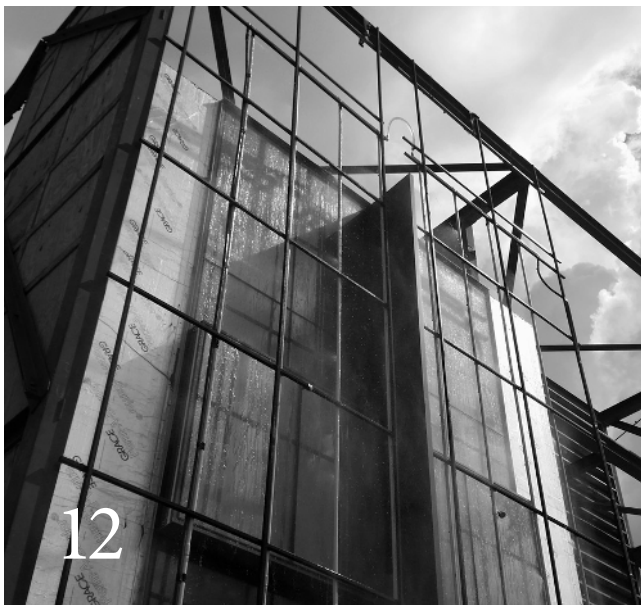
BEYOND THE EXTERIOR

January 2017

COMMISSIONING
THE EXTERIOR
BUILDING
ENVELOPE
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WELCOME FRIENDS

WORDS: Bill Coltzer Jr., AIA



THINK OF ZERO/SIX AS A “STUNT ARCHITECT”; WE MAY NOT BE ON THE MARQUEE OR GET TO KISS THE GIRL, BUT WE ARE PROVIDING VERY SPECIALIZED SERVICES THAT ONLY A FEW FIRMS CAN PROVIDE.

Welcome aboard the maiden voyage of the Zero/Six newsletter. Each month, we will be sharing some of the very cool “sights” that we have seen along our soon to be fifteen-year journey...and I assure you we have seen some sights! For a relatively small company, Zero/Six really gets around; traveling with an elite crowd on premier projects. Think of Zero/Six as a “stunt Architect”; we may not be on the marquee or get to kiss the girl, but we are providing very specialized services that only a few firms can provide. The truth is, at the end of the day, we are just honored to be on the set of such prestigious projects.

The owners, Architects, and contractors that Zero/Six works alongside represent the best of the best, and as such, we are continuously exposed to unique program requirements, cutting-edge design and processes, space age materials, and the most advanced construction technology available. We have ringside seats to a “think tank” that is second to none and we want to share the “lessons learned” from these, sometimes intense, forums.

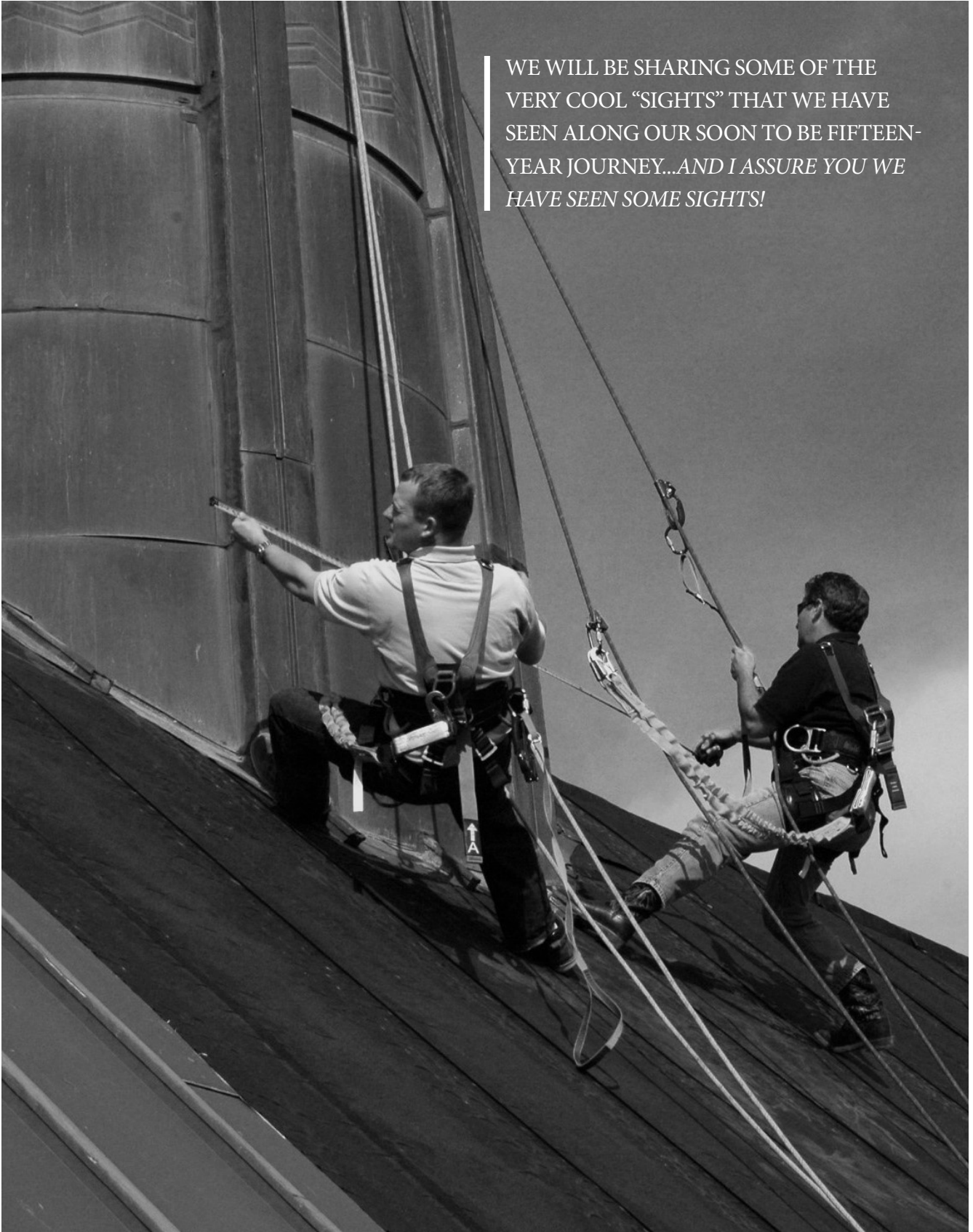
The project types that Zero/Six participates on include everything from Bio Safety Level 4 research laboratories to high-end private residences and our geographic territory does not have limitations. As such, the focus of this newsletter will expand far beyond the Gulf Coast higher education facilities that we are commonly associated with; hopefully this process will expose all parties to new ideas and develop new relationships along the way.

With that in mind, I appreciate that Zero/Six was built on relationships that evolved over time and not as a grand strategic plan. Our growth is dependent on new relationships and we are really excited at the opportunities this web voyage presents.

Enjoy the ride.

Billy.

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VERY COOL “SIGHTS” THAT WE HAVE
SEEN ALONG OUR SOON TO BE FIFTEEN-
YEAR JOURNEY...AND I ASSURE YOU WE
HAVE SEEN SOME SIGHTS!





DEVELOP THE INTENT
+
INSPECT THE PRODUCT
+
TEST THE
COLLABORATIVE EFFORT

ONE POINT THAT IS OFTEN OVERLOOKED WITH REGARD TO BUILDING COMMISSIONING IS THAT IT'S AS MUCH OF A DESIGN VERIFICATION PROCESS AS IT IS A QUALITY ASSURANCE PROCESS.

COMMISSIONING

THE EXTERIOR ENVELOPE

WORDS: Bill Coltzer Jr., AIA, President

In the 1800s, when a ship was commissioned by its captain it meant that it was deemed ready for service. This entailed passing several tests of the equipment, training its crew, and assuring a rigorous quality assurance process.

Building commissioning takes the same approach to new buildings. When a building is commissioned it undergoes an intensive quality assurance process that begins during design and continues through construction, occupancy, and operations. In short, the commissioning process verifies that specific building systems perform in real life as we design and engineer them.

Those of you who have participated in the construction of high performance buildings are likely familiar with the term “commissioning,” even if you are not familiar with the commissioning process. Some of you may have been involved in these commissioning activities and did not even know it; activities such as peer reviews of construction documents and performance testing are not always labeled as commissioning activities per se, but they are in fact integral components to the commissioning process.

Historically, the commissioning process has been focused on mechanical, electrical, plumbing and IT systems; however, the past few years have found it more common to include the exterior building envelope in the commissioning process. This holds particularly true with regard to health care and research facilities. The bad news is that no one really seems to know how to scope the work for the envelope portion of the commissioning exercise. Most often it is added to the commissioning specification (typically a 12-page plus document) as one line that simply

reads, “Commission the Exterior Envelope.” You can imagine the variety of proposals offered by those who undertake commissioning the building envelope, but the good news is that as new trends emerge in the AEC industry, the innovators among us have the opportunity to influence its development. This article is my attempt at influencing that commissioning process.

Multiple reasons exist for the increasing popularity of envelope commissioning/consulting, but I believe that two major factors stand tall above all the others; the first is the vast amount of dispute resolution and litigation issues related to water infiltration. It really is immense and is comprised largely of new buildings that are less than five years old...and the owner/user is not happy. In fact, a very large portion of Zero/Six's work is related to water infiltration on projects where final completion has yet to be achieved which testifies to the fact that owners have learned to become proactive in regards to water infiltration. Adding to the issue of water infiltration, the second issue is related to mechanical systems and the quality of air they deliver. The building envelope is the ultimate building plenum (duct). Just as the efficiency of an HVAC system is dependent on an airtight plenum, the ability of the sub-systems within the envelope to perform as designed are directly related to the tightness of the exterior building envelope. An effective building envelope commissioning process must address these two issues through a three step process designed to fulfill the commissioning process.

Develop the Intent

One point that is often overlooked with regard to building commissioning is that it's as much of a design

THE WHOLE BUILDING COMMISSIONING PROCESS IS AN INVALUABLE TOOL FOR THE ENTIRE PROJECT TEAM.



verification process as it is a quality assurance process. In the traditional MEP/IT commissioning process, the commissioning agent is placed on the project team very early in the process to provide input during the design phase. The intent is to gain assurance during the design phase so that when the building is constructed it performs as specified. Generally speaking, MEP/IT systems remain fairly constant from building type to building type and their installation is closely dictated by code which results in a performance criterion that can be accurately forecasted. The building envelope on the other hand has to be restudied for each project due to the unique architecture design associated with each new building. Since “design” is fluid and likely to change, it is equally important that the envelope commissioning begins at the early stages along with MEP/IT. Think about it: if a pump, switch, or air handler do not perform, they can be replaced. However, if a flashing is overlooked in the design phase, portions of the cladding may have to be removed to install it later. Then, consider that the same flashing might have been left out at every window of an occupied high-rise structure and now you have a remedial project that will require significant time and funding once the oversight becomes apparent to all within. Been there, done that.

One of the goals of the envelope commissioning process is to participate in the design process and address details before they become an issue. Mock-ups are a vital part of the process when attempting to “Develop the Intent.” Because building Architecture varies from project to project, mock-ups of the project specific conditions become invaluable prototypes. Although cladding systems often are repeated among various projects, their relationship to adjacent systems is always changing. With the evolution of Building Information Modeling (BIM), many of these mock-ups can

be generated inexpensively on a virtual platform; for testing purposes though, there is no substitute for a full-size working mock-up.

Inspect the Product

Assuming that you now have construction documents that convey the intent, the next step in the commissioning process is to “Inspect the Product” through a quality control (QC) program executed by persons who understand how the various systems will interface. This person must also be able to go beyond understanding the systems interface as the success of the QC program is largely dependent on the ability of the inspector to safely access hard to reach areas regularly. Finally, as part of the QC program, deficient work is logged as it’s observed and then tracked to a resolution; in other words, no “punch list surprises” at substantial completion.

Test the Collaborative Effort

Successful building construction depends on the successful collaboration of designers, manufacturers and installers. Because testing verifies design as well as construction, the collaborative effort must be tested early in the process so repetitive deficiencies can be corrected prior to a full blown remediation effort.

Testing commonly included in the commissioning process:

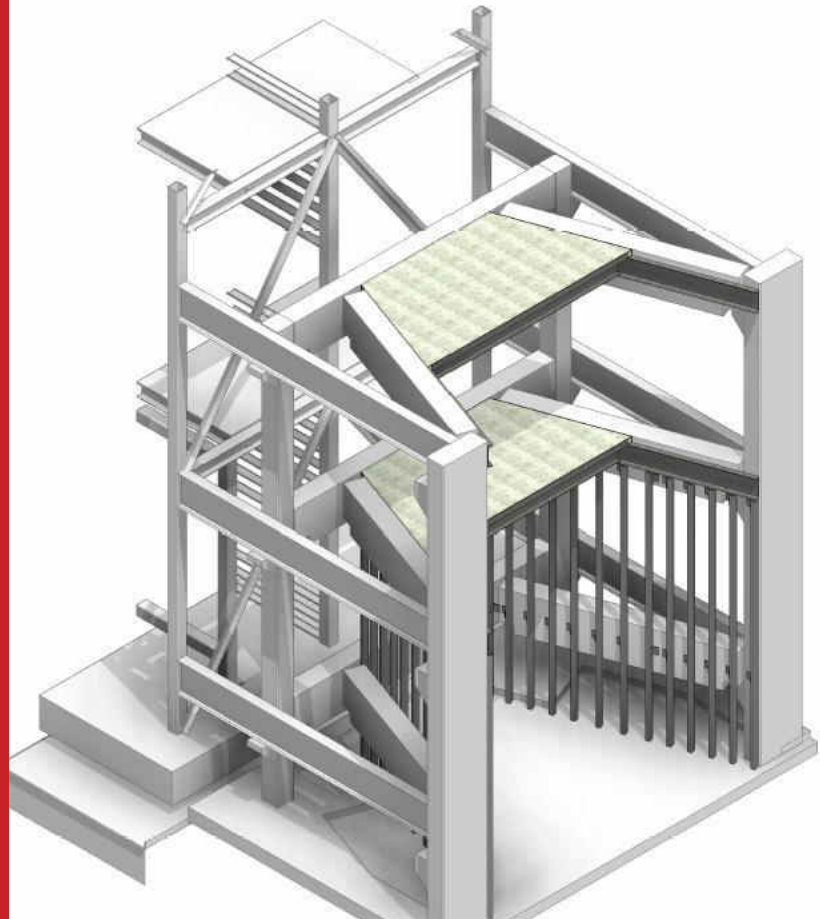
- Flood testing of below grade areas and water-proofed terraces
- Pull testing of sealant joints
- Water infiltration testing of windows per ASTM E1105
- Roof uplift testing per ASTM E907
- Thermal imaging of building envelope

It’s true that expanding the commissioning process as it relates to the exterior building envelope is an additional “line item” in the project estimate, but I would argue that it does not add to the bottom line of the total project cost. Projects that do not address envelope issues up front often times end up addressing them near substantial completion due to failed testing. The cost associated with recovery programs typically dwarf the cost associated with an envelope commissioning program. Consider the following case study as an example, and keep in mind that this is not unique in this industry:

A high rise tower project that involved Zero/Six included over 1600 shop fabricated high performance punched windows in pre-cast concrete openings. In an effort to provide better quality control of the fabricated units, the window contractor elected to fabricate these units off site in their shop environment. The project team included a premier Architect, a first class construction team, a first class product, and the world’s easiest window installation

detail. No problem, right? Wrong. Somewhere between the shop and the project site, 200 miles away, the units were ever so slightly damaged, resulting in water infiltration during rain events. I suspect that the damage was related to shipping and/or crating due to the consistent nature of this defect. The lesson learned from this story is that a commissioning program would have included testing windows early on and would have established a recovery plan that was proactive and did not involve the postmortem removal of 1600 windows over a three month period.

In closing, the whole building commissioning process is an invaluable tool for the entire project team. Potential performance issues can be identified and addressed during the design phase, thus defusing construction defect based claims where mediation finds everyone writing checks. Additionally, building performance is well documented at building delivery, so if the building is found not to perform at some point in the future; it may be related to post construction issues such as maintenance. Not that it ever happens... I'm just sayin'.



THE UNIVERSITY OF TEXAS - RIO GRANDE VALLEY, ACADEMIC BUILDING

The 102,500-gross-square-foot academic building is intended to serve students at two campuses, so it will rely on state-of-the-art technologies to allow for seamless communication and will house general academics and the music and science programs.

Owner: The University of Texas System
Architect: Stantec
Contractor: Bartlett Cocke General Contractors
Location: Brownsville, Texas
Project Status: February 2018
Scope of Work: Peer review of construction documents, on-site QA/QC and reporting, and commissioning of the building envelope, including: air/water infiltration per ASTM E1105 and E783 and roof uplift testing per ASTM E907.



Photo Credit: Stantec

UNIVERSITY OF TEXAS AT ARLINGTON, SCIENCE, ENGINEERING INNOVATION & RESEARCH BUILDING

The University of Texas at Arlington is advancing plans for a new 200,000-square-foot, six-story Science, Engineering Innovation and Research building to help meet increasing student demand and to further the University's emerging concentration in health science initiatives.

Owner: The University of Texas System
Architect: Page and ZGF Architects
Contractor: Hunt Construction
Location: Arlington, Texas
Project Status: Summer 2018
Scope of Work: Peer review of construction documents, on-site QA/QC and reporting, and commissioning of the building envelope, including: pre-functional mock-up testing, air/water infiltration testing per ASTM E1105 and E783 and roof uplift testing per ASTM E907.



Photo Credit: Page and ZGF Architects

ENGINEERING

Photo Credit: Kirksey Architecture



HOTEL ZAZA - MEMORIAL CITY

The new hotel will serve as an the anchor of an existing mixed-use area that includes a rich blend of Class A office towers, retail, restaurants, and luxury residences within Memorial City.

Owner:	MetroNational
Architect:	Kirksey Architecture
Contractor:	Anslow Bryant Construction
Location:	Houston, TX
Project Status:	Fall 2017
Scope of Work:	Peer review of construction documents, on-site QA/QC and reporting, and commissioning of the building envelope, including: air/water infiltration testing per ASTM E1105 and E783 and roof uplift testing per ASTM E907.

STRATEGIC PARTNER SPOTLIGHT:

Z6 COMMISSIONING RECEIVES ISO/IEC 17025 ACCREDITATION

Z6 Commissioning (Z6) has achieved the gold standard for building envelope testing facilities; ISO/IEC 17025 certification has been awarded to Z6 Commissioning by the [ANSI-ASQ National Accreditation Board](#) ([ANAB/ILAC](#)). This achievement culminates years of staff training, equipment upgrades, and system implementations and is understandably an exciting one for the Z6 family. This pinnacle of international accreditation requires us to conform to the highest standards in testing procedures available to achieve optimal building envelope efficiency for our clients. We have always strived to be a leader in our industry and this designation as an [ANAB/ILAC](#) ISO/IEC 17025 testing laboratory demonstrates our commitment to and competence in the testing requirements for our clients.

Z6 can now provide our clients with laboratory and field services that are benchmarked against systems and standards to ensure uniformity and integrity of test results.

Working with an ISO/IEC 17025 laboratory means you are assured testing is conducted by an accredited quality management system that is compliant, correct, reliable and based on the latest technical requirements. It also means that our clients have an additional layer of assurance that project objectives will be met on time, at the specified cost, and with the quality and exceptional performance expected.

Our clients can rest easy in the knowledge that each year Z6 will undergo an exhaustive external audit of quality control in multiple areas such as:

- Management Systems
- Personnel Qualifications
- Document Control
- Conformance to International Standards
- Testing Procedures
- Service Control
- Quality Control
- Equipment Use
- Equipment Calibration
- Traceability to an international standard in regards to results
- Reporting Protocol
- Proficiency Testing

Z6 Commissioning's motto since day one has been "Performance Assurance" for our clients; ISO/IEC accreditation proves we are committed to that motto.



SCOPE OF ACCREDITATION TO ISO/IEC 17025

Valid to: October 26, 2018
Certificate Number: AT-2090

I. Construction Materials / Mechanical

Field of Test	Items, Materials or Products Tested	Specific Tests or Properties Measured	Specification, Standard Method, or Technique Used	Key Equipment or Technology*
Building Elements	Exterior Windows, Doors, Skylights, Curtain Walls	Water Infiltration	ASTM E 1105, ASTM E331, ASTM E547, AAMA 501	Water Distribution Rack, Centrifugal Blower, Manometer, Wind Generator, Spray Wand
Building Elements	Exterior Windows, Doors, Skylights, Curtain Walls	Air Infiltration	ASTM E283, ASTM E783	Centrifugal Blower, Laminar Flow Element, Manometer
Building Elements	Exterior Windows, Doors, Skylights, Curtain Walls	Water and Air Infiltration	AAMA 502, AAMA 503	Water Distribution Rack, Centrifugal Blower, Manometer
Building Elements	Exterior Windows, Doors, Skylights, Curtain Walls	Deflection / Deglazing	ASTM E330, ASTM E987	Digital Deflection Indicator, Centrifugal Blower
Building Elements	Roofing Systems	Uplift Force	ASTM E907, FM Global 1-52	Uplift Chamber, Manometer, Centrifugal Blower
Building Elements	Coating Films, Adhesion Bond	Adhesion Strength	ASTM D3359, ASTM D903	Adhesion Test Kit
Building Elements	Windows, Sliding Door Assemblies	Forced Entry	ASTM F588, ASTM F842	Forced Entry Test Kit
Building Elements	Concrete or Clay Tiles	Wind / Uplift Resistance	ASTM C1568, ASTM D4541, ASTM E2359/E2359M	Construction Load Cell Pull Tester
Building Elements	Miscellaneous	Roofing, Window Sealant, Envelope Air Leakage, Foundation Humidity, Cladding Moisture Absorption	ASTM C1521, ASTM D7877, ASTM E1186, ASTM F2170, Rilem Commission 25/PEM test method 1154)	Sealant Test Kit, High & Low Voltage Electronic Detection Units, Centrifugal Blower, Smoke Tracer Unit, Infrared Camera, in situ probes, Rilem Tubes

FOR MORE INFORMATION ABOUT Z6 COMMISSIONING AND A COMPLETE LIST OF CERTIFICATIONS HELD, VIEW THE Z6 ABOUT US PAGE, AND EXPLORE THE REST OF THE WEBSITE BY VISITING, WWW.Z6COMMISSIONING.COM.



Yaga's Children's Fund ▲

Zero/Six, along with several generous sponsors, raised over \$5,000 for the Yaga's Children's Fund. The annual BBQ and Wild-Game Cook-Off was held in Galveston, where the team served up delicious BBQ, fajitas and more to over a 1,000 people and even took home 4th place in the Chef's Choice category for our cheesecake! Yaga's Children's Fund puts on the annual cook-off to raise funds for more than 20 children's programs in Galveston County, including Gulf Coast Big Brothers & Big Sisters, Advocacy Center for Children of Galveston County, Boy Scouts, and Hospice Care Team, to name a few. This event has raised in excess of \$1,000,000 for Galveston County youth with ALL proceeds going directly to programs that enhance the moral, psychological, intellectual, vocational and physical development of Galveston County's children. We would like to thank all of the people and companies who supported us by donating to this wonderful cause.



◀ Big Staff Achievements

It's official! Christian Ozburn, RA is now licensed to practice architecture in the state of Texas and is our new Director of Architecture & Simulations! Christian has made himself known as a versatile and innovative member of the design and building community, having been involved in a broad range of project types and work scopes. His experiences include construction management, building information modeling, energy analysis, forensic architecture, construction administration, construction documentation, software development, and as-built documentation of some of our nation's largest buildings. We can't wait to see the big things he's going to do in his new role.

A Day on the Range ►

This year Zero/Six co-hosted a "Day on the Range" Clay Shoot Competition with Chamberlin Roofing & Waterproofing! It was a great day of shooting, raffle prizes and networking with clients and friends! A BIG THANK YOU to all our shooting participants, the vendors and volunteers who came out to make it the great day that it was!



▲ Baptist Hospital Golf Tournament

The Zero/Six team had a great time at the Baptist Hospitals of Southeast Texas Foundation Classic Golf Tournament! We're so proud to help sponsor a great cause that supports many hospital programs and services, including the Children's Unit and the Baptist Cancer Center!





▲ The Zero/Six Family is Growing!

2016 has been a very exciting year for Zero/Six. We launched a new company website, developed a brochure that includes our complete service offering and welcomed eight new employees to our firm. As we've grown, our team has expanded to include even more of the best and brightest talents in our industry. A good testament to our growing scope of work! We have even more ambitious plans for 2017 and to help us achieve our goals, we're pleased to introduce our newest team members: Brandon McDermott, Senior Project Manager, Brandon Schattel, Testing Team Technician, Colin Dagostino, Testing Team Technician, Courtney Brodbeck, Marketing Director, Eddie Acosta, Senior Project Manager, Eddie Solis, Assistant Project Manager, Steve Singleton, General Manager, and Tom Amos, RRO, Senior Field Specialist.



◀ 2016 AIA Sandcastle Competition

Since 1986, the Houston chapter of the American Institute of Architects (AIA) has been hosting one of the world's largest sandcastle competition events created specifically for design, architectural, and engineering professionals. Held in Galveston every year, our team joined the more than 20,000 spectators to cheer on the 60 teams competing for the prestigious Golden Bucket Award! We had so much fun serving up delicious food and ice cold drinks for our partners and clients this year. We can't wait to see everyone again next summer.



Texas A&M Student Presentation ▲

Our team enjoyed talking to the Texas A&M University Associated Builders and Contractors (ABC) students interested in: pre-construction, energy performance and optimization, laboratory mock-ups, building commissioning, and litigation consulting!

ZERO/SIX 2016 WRAP-UP

PROJECT SPOTLIGHT

GEORGE R. BROWN CONVENTION CENTER

ZERO/SIX SUPPORTS MAJOR RENOVATION OF GEORGE R. BROWN
CONVENTION CENTER FOR SUPER BOWL LI





The television cameras...the roar of the crowd...the peak of excitement! It's almost time for Super Bowl LI (51) in the Bayou City. Over one million visitors are expected to visit Houston next month and it's time for the 4th largest city in the U.S. to show the world why it's positioned to host one of the largest sporting events in the world.

The George R. Brown Convention Center (GRBCC) and adjacent Discovery Green Park have been designated as "Super Bowl El Centro", which will serve as the anchor for a 35-block area that will host a ten-day, Texas-sized, Super Bowl party. As part of these preparations, the City of Houston engaged in a \$175 million renovation of the 1.8 million-square-foot GRBCC. This renovation involved a face lift that would modernize the park facing side of the convention center, creating a pedestrian-friendly area with new restaurant and retail space adjacent to the center and connect it with neighboring buildings via sky bridges.

The complexity of this retrofit required a seasoned building envelope consultant. Zero/Six was contracted by WHR Architects to produce all exterior envelope contract drawings based on design intent by WHR and approved by the City of Houston. Zero/Six also produced all division seven specifications for the project (roofing, thermal, and moisture protection). These documents were then merged with the rest of the WHR contract documents and their other consultants. The solution included a heat applied rubberized asphalt inverted roof system that utilized pedestal pavers to allow for an aesthetically pleasing walkway, yet function as a weather-proof roof for pedestrians below. Through our close relationship and collaboration with WHR, Zero/Six produced a façade retrofit that will not only prolong the life of the exterior envelope of the convention center; it will serve to create public spaces to be enjoyed during the Super Bowl and for many years to come.

Zero/Six was honored to be a part of this grand undertaking and hopes the community will enjoy the revitalized GRBCC!

PROJECT INFORMATION:

Owner:	Houston First
Architect:	WHR Architects
Contractor:	Vaughn Construction
Estimated Cost:	\$175 million
Project Scale:	1.8 million-square-feet
Services Provided:	Schematic Design Design Development Construction Documents Construction Administration
Roof System:	Hot Applied Rubberized Asphalt Inverted Roof System
Market:	Commercial
Construction Type:	Renovation and Expansion

SPEAKING ENGAGEMENTS:

DON'T MISS OUR CASE STUDY AT THE
RCI 32ND ANNUAL INTERNATIONAL
CONVENTION & TRADE SHOW



“OPTIMIZING THE BUILDING ENVELOPE WITH A BIM-BASED FRAMEWORK”

Zero/Six Consulting is excited to announce we will be speaking and exhibiting at the RCI 32nd International Convention & Trade Show in Anaheim, CA from March 16 – 21, 2017.

Join us in the conversation as Zero/Six's President, Bill Coltzer Jr., AIA and Director of Architecture & Simulations, Christian Ozbun, RA discuss, *Optimizing the Building Envelope with a BIM-based Framework*, on Monday, March 20, 2017 from 8:45–10:15 A.M. and discover how BIM is a natural extension of the construction process. Can't make it? An encore presentation will be given on Monday, March 20, 2017 from 10:30 A.M.–12:00 P.M.

To learn how Zero/Six can work with you to build a better building envelope, stop by our **Booth 339** in the exhibition hall and our specialists will answer any questions you may have or just stop by and say hi to our team!

Note: Educational programs are approved to yield continuing education credits for members of RCI and the American Institute of Architects.

Presentation Overview:

Optimizing the Building Envelope with a BIM-based Framework:

Imagine putting together a puzzle with pieces designed by ten different companies. The building envelope process is like that puzzle; it is made up of an aggregate of multiple designs coming together for the first time on-site. Building Information Modeling

(BIM) puts all the pieces together virtually so that multiple design elements come together on-site with design mistakes and oversights identified and corrected.

In 2015, Zero/Six collaborated with Hensel Phelps to assemble the pieces in a BIM framework to coordinate shop drawings for a 432,671 square feet (sq. ft.) facility. Numerous architectural and structural drawings multiplied the potential for discrepancies both before and after construction. By combining the envelope drawings and structural model into an intelligent 3D design we were able to identify issues that would have been costly to remedy once the pieces came together on-site.

Our research presents an overview of BIM for engineers, architects and construction professionals to optimize the building envelope through BIM work flow processes, organizing the model by trade, project sequencing, and generating quantities directly from the data. BIM allows us to put the building envelope puzzle together before dumping all the pieces out of the box.

Learning Objectives:

1. **BIM Work flow Processes:** Learn how BIM is a natural extension of the construction process.
2. **Project Sequencing:** Not only must the BIM model take into account each contractor's scope of work, but phasing must be done to ensure trades don't conflict with each other. The model takes into account the order in which each item is installed.
3. **Organizing the Model by Trade:** A BIM model can be used to separate each contractor's scope. Architectural drawings look mainly at design intent (how it looks) and where components need to be located. A coordination model looks at which contractor will be installing each specific item.
4. **Generating Quantities Directly from the Data:** Since each item has embedded data in it, it's possible to get a material quantity generated directly from the model so each subcontractor knows how much material they can expect to use.

AIA-APPROVED
CEU
PRESENTATIONS!
CONTACT US
TODAY!

LEARN HOW BIM IS A
NATURAL EXTENSION OF THE
CONSTRUCTION PROCESS.



HAVE A LOOK
INTO YOUR
FUTURE...

JOIN OUR ZERO/SIX TEAM

At Zero/Six Consulting, we're always on the lookout for fresh insight, creative minds and bold talent, at all experience levels and specialties, to work on unique projects in a wide variety of markets from design through project completion.

Current Opportunities

Senior Field Specialist – Houston, TX

JOB DESCRIPTION - Building envelope inspector, providing on-site QA/QC

PRIMARY RESPONSIBILITIES

- Inspect work in progress related to the exterior building envelope and prepare/distribute detailed field reports of each visit or as otherwise required. Inspections may require climbing. Good physical condition and a comfort with heights is a must.
- Assist with peer reviews of exterior envelope components of construction documents.
- Coordinate recovery details for work that cannot be installed as illustrated or where work sequence dictates a change in detailing.
- Attend project meetings as required.

SKILL REQUIREMENTS

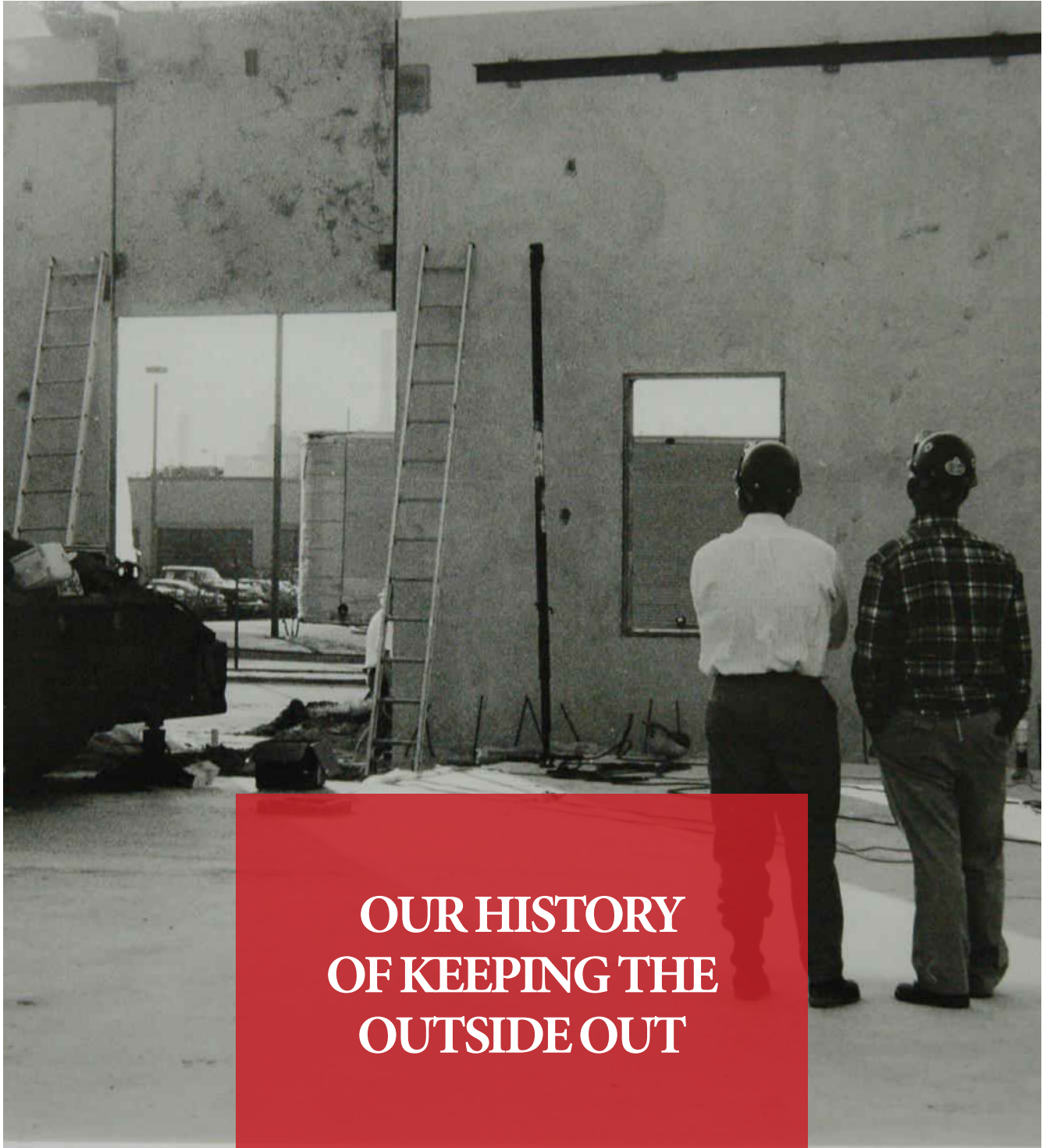
- Superior knowledge of exterior building systems.
- Team player.
- Knowledge of Microsoft Office suite
- Professional written and verbal communication and interpersonal skills. Ability to participate in and facilitate group meetings.
- Willingness to work a flexible schedule. Travel is required.

REQUIRED EXPERIENCE:

- On-site inspection: 5 years

[APPLY NOW](#)





**OUR HISTORY
OF KEEPING THE
OUTSIDE OUT**

Thank you for reading our newsletter!

For more information, visit www.z6consulting.com!